

=> d his ful; d sta que

(FILE 'HOME' ENTERED AT 14:45:43 ON 24 FEB 2006)

FILE 'REGISTRY' ENTERED AT 14:45:53 ON 24 FEB 2006

L1 STRUCTURE uploaded
L2 STRUCTURE uploaded
L3 STRUCTURE uploaded
L4 STRUCTURE uploaded
L5 STRUCTURE uploaded
L6 STRUCTURE uploaded
L7 1 SEA SSS SAM L2
L8 49 SEA SSS FUL L2
L9 49 SEA SUB=L8 SSS FUL L5
L10 50 SEA SSS SAM L4
L11 5342 SEA SSS FUL L4
L12 2831 SEA SUB=L11 SSS FUL L1
L13 STRUCTURE uploaded
L14 17 SEA SUB=L11 SSS FUL L13
D QUE L11
L15 2511 SEA PLU=ON L11 NOT L12
L16 2499 SEA PLU=ON L15 NOT L14
L17 4233291 SEA PLU=ON SQL<=21
L18 2104 SEA PLU=ON L17 AND L16
L19 613 SEA PLU=ON L18 AND SQL<=10
L20 21 SEA PLU=ON L18 AND SQL<=5

FILE 'HCAPLUS, USPATFULL, USPAT2, TOXCENTER, CASREACT' ENTERED AT
15:04:39 ON 24 FEB 2006

L21 8 SEA PLU=ON L9
L22 7 DUP REM L21 (1 DUPLICATE REMOVED)
D IBIB L22 1-7 HITSTR
SET AUTOSEARCH ON PERM
L23 37 SEA PLU=ON L20
L24 30 DUP REM L23 (7 DUPLICATES REMOVED)
L25 30 SEA PLU=ON L24 NOT L22
L26 18 SEA PLU=ON L25 AND (PD<20010216 OR PRD<20010216)
L27 13 SEA PLU=ON L25 AND (PD<20000216)
L28 2 SEA PLU=ON L27 AND TRANSPOR?
D IBIB HITSTR L28 1-2
D L28 1-2 IBIB KWIC

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 22 FEB 2006 HIGHEST RN 874945-83-2

DICTIONARY FILE UPDATES: 22 FEB 2006 HIGHEST RN 874945-83-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

*

* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *

* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE HCPLUS

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FILE COVERS 1907 - 24 Feb 2006 VOL 144 ISS 10
FILE LAST UPDATED: 23 Feb 2006 (20060223/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 23 Feb 2006 (20060223/PD)
FILE LAST UPDATED: 23 Feb 2006 (20060223/ED)
HIGHEST GRANTED PATENT NUMBER: US7003800
HIGHEST APPLICATION PUBLICATION NUMBER: US2006041984
CA INDEXING IS CURRENT THROUGH 23 Feb 2006 (20060223/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 23 Feb 2006 (20060223/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 23 Feb 2006 (20060223/PD)
FILE LAST UPDATED: 23 Feb 2006 (20060223/ED)
HIGHEST GRANTED PATENT NUMBER: US2004201620
HIGHEST APPLICATION PUBLICATION NUMBER: US2006041918
CA INDEXING IS CURRENT THROUGH 23 Feb 2006 (20060223/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 23 Feb 2006 (20060223/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

FILE TOXCENTER

FILE COVERS 1907 TO 21 Feb 2006 (20060221/ED)

This file contains CAS Registry Numbers for easy and accurate substance
identification.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TOXCENTER has been enhanced with new files segments and search fields. See HELP CONTENT for more information.

TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

See <http://www.nlm.nih.gov/mesh/>

http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html

http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

for a description of changes.

FILE CASREACT

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.

FILE CONTENT: 1840 - 19 Feb 2006 VOL 144 ISS 8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

*

*

* CASREACT now has more than 10 million reactions *

*

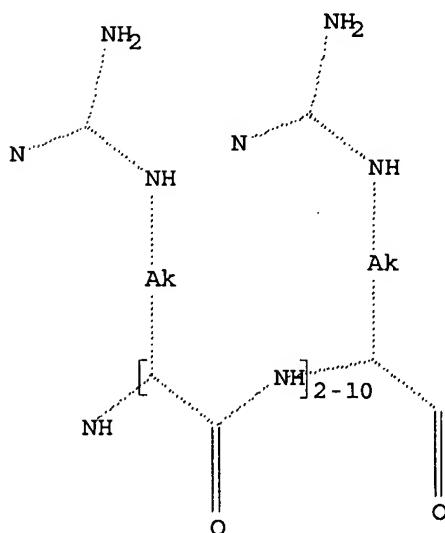
*

Some CASREACT records are derived from the ZIC/VINITI database (1974-1991) provided by InfoChem, INPI data prior to 1986, and Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance identification.

L1

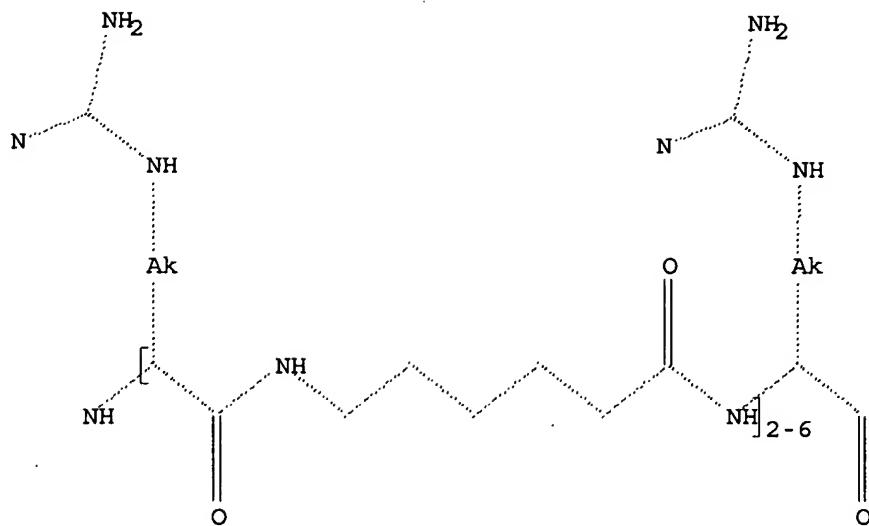
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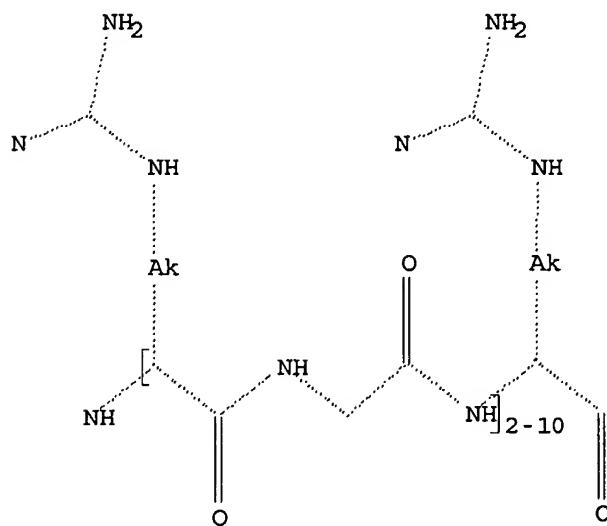
Structure attributes must be viewed using STN Express query preparation.

L2

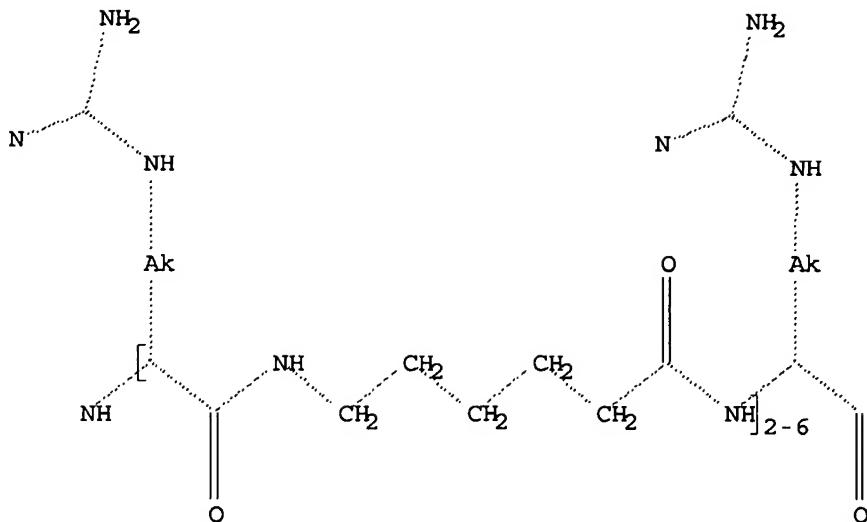
STR



Structure attributes must be viewed using STN Express query preparation.
L4 STR

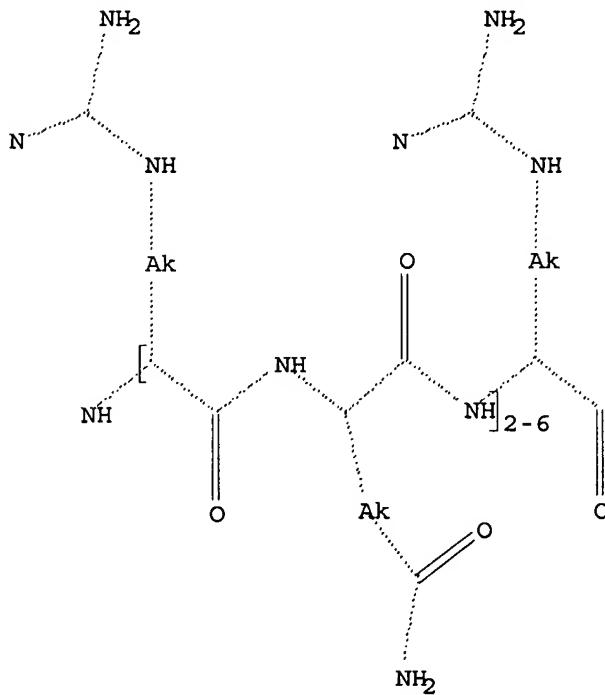


Structure attributes must be viewed using STN Express query preparation.
L5 STR



Structure attributes must be viewed using STN Express query preparation.

L8 49 SEA FILE=REGISTRY SSS FUL L2
L9 49 SEA FILE=REGISTRY SUB=L8 SSS FUL L5
L11 5342 SEA FILE=REGISTRY SSS FUL L4
L12 2831 SEA FILE=REGISTRY SUB=L11 SSS FUL L1
L13 STR



Structure attributes must be viewed using STN Express query preparation.

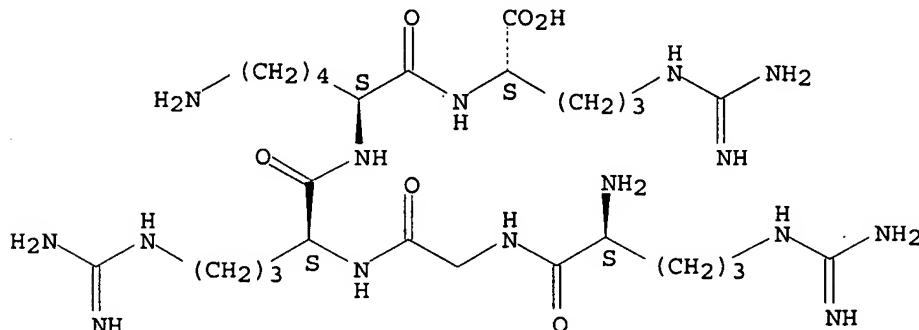
L14	17	SEA	FILE=REGISTRY	SUB=L11	SSS	FUL	L13
L15	2511	SEA	FILE=REGISTRY	PLU=ON	L11	NOT	L12
L16	2499	SEA	FILE=REGISTRY	PLU=ON	L15	NOT	L14
L17	4233291	SEA	FILE=REGISTRY	PLU=ON	SQL<=21		
L18	2104	SEA	FILE=REGISTRY	PLU=ON	L17	AND	L16
L20	21	SEA	FILE=REGISTRY	PLU=ON	L18	AND	SQL<=5

L21 8 SEA L9
L22 7 DUP REM L21 (1 DUPLICATE REMOVED)
L23 37 SEA L20
L24 30 DUP REM L23 (7 DUPLICATES REMOVED)
L25 30 SEA L24 NOT L22
L27 13 SEA L25 AND (PD<20000216)
L28 2 SEA L27 AND TRANSPOR?



L28 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:569549 HCAPLUS
 DOCUMENT NUMBER: 133:203119
 TITLE: Nuclear import of insulin-like growth factor-binding protein-3 and -5 is mediated by the importin β subunit
 AUTHOR(S): Schedlich, Lynette J.; Le Page, Sophie L.; Firth, Sue M.; Briggs, Lyndall J.; Jans, David A.; Baxter, Robert C.
 CORPORATE SOURCE: Kolling Institute of Medical Research, Royal North Shore Hospital, University of Sydney, Sydney, 2065, Australia
 SOURCE: Journal of Biological Chemistry (2000), 275(31), 23462-23470
 CODEN: JBCHA3; ISSN: 0021-9258
 PUBLISHER: American Society for Biochemistry and Molecular Biology
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT 290828-81-8
 RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
 (214-218 recombinant human IGFBP-5 nuclear targeting fragment; mechanism for nuclear import of IGFBP-3 and -5 involving importin β subunit)
 RN 290828-81-8 HCAPLUS
 CN L-Arginine, L-arginylglycyl-L-arginyl-L-lysyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1995:886699 HCAPLUS
 DOCUMENT NUMBER: 124:48962
 TITLE: COOH-terminal sequence motifs target the T cell protein tyrosine phosphatase to the ER and nucleus
 AUTHOR(S): Lorenzen, James A.; Dadabay, Carolyn Y.; Fischer, Edmond H.
 CORPORATE SOURCE: Dep. of Biochemistry, Univ. of Washington, Seattle, WA, 98195, USA
 SOURCE: Journal of Cell Biology (1995), 131(3), 631-43
 CODEN: JCLBA3; ISSN: 0021-9525
 PUBLISHER: Rockefeller University Press
 DOCUMENT TYPE: Journal
 LANGUAGE: English

IT 171899-38-0

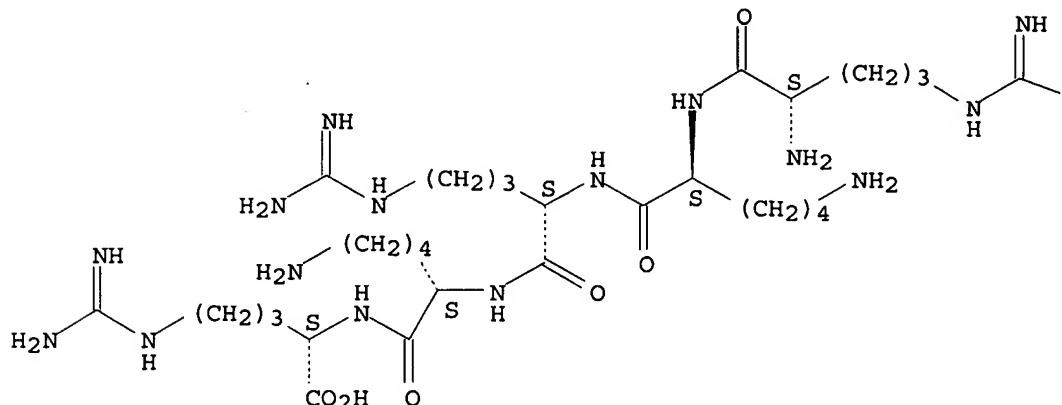
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(nuclear localization signal peptide; COOH-terminal sequence motifs target T cell protein tyrosine phosphatase to endoplasmic reticulum and nucleus)

RN 171899-38-0 HCPLUS

CN L-Arginine, N2- [N2- [N2- (N2-L-arginyl-L-lysyl)-L-arginyl]-L-lysyl]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

—NH₂

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FILE 'REGISTRY' ENTERED AT 14:45:53 ON 24 FEB 2006

L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 STRUCTURE UPLOADED
L4 STRUCTURE UPLOADED
L5 STRUCTURE UPLOADED
L6 STRUCTURE UPLOADED
L7 1 S L2 SAM
L8 49 S L2 FUL
L9 49 S L5 FUL SUB=L8
L10 50 S L4
L11 5342 S L4 FUL
L12 2831 S L1 FUL SUB=L11
L13 STRUCTURE UPLOADED
L14 17 S L13 SUB=L11 FUL
L15 2511 S L11 NOT L12
L16 2499 S L15 NOT L14

L17 4233291 S SQL<=21
L18 2104 S L17 AND L16
L19 613 S L18 AND SQL<=10
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L24 30 DUP REM L23 (7 DUPLICATES REMOVED)
L25 30 L24 NOT L22
L26 18 L25 AND (PD<20010216 OR PRD<20010216)
L27 13 L25 AND (PD<20000216)
L28 2 L27 AND TRANSPOR?

=> d 128 1-2 ibib kwic

L28 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:569549 HCAPLUS
DOCUMENT NUMBER: 133:203119
TITLE: Nuclear import of insulin-like growth factor-binding protein-3 and -5 is mediated by the importin β subunit
AUTHOR(S): Schedlich, Lynette J.; Le Page, Sophie L.; Firth, Sue M.; Briggs, Lyndall J.; Jans, David A.; Baxter, Robert C.
CORPORATE SOURCE: Kolling Institute of Medical Research, Royal North Shore Hospital, University of Sydney, Sydney, 2065, Australia
SOURCE: Journal of Biological Chemistry (2000), 275(31), 23462-23470
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
SO Journal of Biological Chemistry (2000), 275(31), 23462-23470
CODEN: JBCHA3; ISSN: 0021-9258
AB Although insulin-like growth factor-binding protein (IGFBP)-3 and IGFBP-5 are known to modulate cell growth by reversibly sequestering extracellular insulin-like growth factors, several reports have suggested that IGFBP-3, and possibly also IGFBP-5, have important insulin-like growth factor-independent effects on cell growth. These effects may be related to the putative nuclear actions of IGFBP-3 and IGFBP-5, which the authors have recently shown are transported to the nuclei of T47D breast cancer cells. The authors now describe the mechanism for nuclear import of IGFBP-3 and IGFBP-5. In digitonin-permeabilized cells, where the nuclear envelope remained intact, nuclear translocation of wild-type IGFBP-3 appears to occur by a nuclear localization sequence (NLS)-dependent pathway mediated principally by the importin β nuclear transport factor and requiring both ATP and GTP hydrolysis. Under identical conditions, an NLS mutant form of IGFBP-3, IGFBP-3 [228KGRKR \rightarrow MDGEA], was unable to translocate to the nucleus. In cells where both the plasma membrane and nuclear envelope were permeabilized, wild-type IGFBP-3, but not the mutant form, accumulated in the nucleus, implying that the NLS was also involved in mediating binding to nuclear components. By fusing wild-type and mutant forms of NLS sequences (IGFBP-3 [215-232] and IGFBP-5 [201-218]) to the green fluorescent protein, the authors identified the critical residues of the NLS necessary and sufficient for nuclear accumulation. Using a

Western ligand binding assay, wild-type IGFBP-3 and IGFBP-5, but not an NLS mutant form of IGFBP-3, were shown to be recognized by importin β and the α/β heterodimer but only poorly by importin α .

Together these results suggest that the NLSs within the C-terminal domain of IGFBP-3 and IGFBP-5 are required for importin- β -dependent nuclear uptake and probably also accumulation through mediating binding to nuclear components.

IT Biological transport
(import; mechanism for nuclear import of IGFBP-3 and -5 involving importin β subunit)

IT Biological transport
(intracellular; mechanism for nuclear import of IGFBP-3 and -5 involving importin β subunit)

IT 290828-81-8
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(214-218 recombinant human IGFBP-5 nuclear targeting fragment; mechanism for nuclear import of IGFBP-3 and -5 involving importin β subunit)

L28 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:886699 HCAPLUS

DOCUMENT NUMBER: 124:48962

TITLE: COOH-terminal sequence motifs target the T cell protein tyrosine phosphatase to the ER and nucleus

AUTHOR(S): Lorenzen, James A.; Dadabay, Carolyn Y.; Fischer, Edmond H.

CORPORATE SOURCE: Dep. of Biochemistry, Univ. of Washington, Seattle, WA, 98195, USA

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PUBLISHER: Rockefeller University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

SO Journal of Cell Biology (1995), 131(3), 631-43

CODEN: JCLBA3; ISSN: 0021-9525

ST protein tyrosine phosphatase transport cell nucleus; endoplasmic reticulum protein tyrosine phosphatase transport

IT Biological transport
(translocation, COOH-terminal sequence motifs target T cell protein tyrosine phosphatase to endoplasmic reticulum and nucleus)

IT 171899-38-0
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(nuclear localization signal peptide; COOH-terminal sequence motifs target T cell protein tyrosine phosphatase to endoplasmic reticulum and nucleus)